WHAT IS CLAIMED IS:

1. A method for communicating data comprising:

RLL encoding the data in accordance with a run length limited (RLL) code; and

placing a seed in the RLL encoded data, the seed selected to provide error correction code (ECC) parity in accordance with an RLL constraint to thereby generate channel data.

2. The method of claim 1 wherein the RLL constraint requires an ECC parity having no zero symbols.

3. The method of claim 1 including scrambling and error detection coding (EDC) the user data prior to RLL encoding.

4. The method of claim 1 including selecting the seed based upon an occurrence of a zero symbol in the ECC parity.

5. The method of claim 1 including iteratively testing seeds to identify a seed which satisfies the RLL constraint.

6. The method of claim 1 including calculating initial ECC parity symbols based upon the seed.

7. The method of claim 6 including determining a second set of ECC parity symbols based upon a new seed.

8. The method of claim 7 wherein the second set of ECC parity symbols is determined by addition with a codeword.

9. The method of claim 8 including retrieving the codeword from a memory.

10. The method of claim 1 including decoding the channel data by selecting a decode seed and RLL decoding the ECC parity data.

11. The method of claim 10 including correcting decode errors due to an incorrect decode seed.

12. The method of claim 10 including selecting a different decode seed if there are decode errors.

13. The method of claim 1 wherein the seed is appended to the RLL encoded data.

14. The method of claim 1 wherein the seed is placed anywhere in the RLL encoded data.

15. The method of claim 1 wherein the seed is used to compute the ECC parity and is transmitted with the channel data..

16. The method of claim 1 wherein the seed is used to compute the ECC parity and is not transmitted with the channel data.

17. The method of claim 1 including storing the channel data on a storage medium.

18. The method of claim 10 including retrieving the channel data from a storage medium prior to decoding the channel data.

19. A system for communicating data comprising:

a run length limited (RLL) encoder configured to RLL encode user data;

a seed selection module configured to select a seed for placement in the RLL encoded data to provide an error correction code (ECC) parity in accordance with an RLL constraint to generate channel data.

20. The apparatus of claim 19 wherein the RLL constraint requires an ECC parity having no zero symbols.

21. The apparatus of claim 19 wherein the seed selection module iteratively tests seeds to identify a seed that satisfies the RLL constraint.

22. The apparatus of claim 19 wherein the seed selection module calculates an initial parity based upon the seed.

23. The apparatus of claim 22 wherein the seed selection module determines a second ECC parity based upon a new seed.

24. The apparatus of claim 23 wherein the seed selection module determines the second ECC parity by addition of a code word.

25. The apparatus of claim 24 wherein the seed selection module retrieves the codeword from a memory.

26. The apparatus of claim 19 including a decoder for decoding the channel data.

27. The apparatus of claim 26 wherein the decoder selects a seed for use in decoding the channel data.

28. The apparatus of claim 27 wherein the decoder uses an error correction code to correct errors in the decoded data due to incorrect decode seed.

29. The apparatus of claim 27 wherein the decoder iteratively selects decode seeds.

30. The apparatus of claim 19 including a storage medium for storing the channel data.

31. The apparatus of claim 30 wherein the storage medium comprises a disc.